

ABSTRACT OF THE DISCLOSURE

A stent-graft is provided which includes a smooth continuous inside surface for efficient fluid flow therethrough, preferably formed of a film of parylene. The stent-graft is implantable intraluminally by radially expanding the stent-graft adjacent an area within the body lumen to be treated, or implanted utilizing direct surgical techniques. A cylindrical support structure is preferably provided which is at least partially embedded along with portions of the film. The cylindrical support structure facilitates radial expansion and provides additional structural strength to the stent-graft. A woven fabric support structure can also be embedded within the film of solid material forming the stent-graft to provide additional support to the stent-graft and allow suturing of the stent-graft to walls of the lumen. Various different geometric configurations can be provided for the stent-graft. Various different attachment and fixation structures are provided to secure the stent-graft in the desired implantation position.